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Will Simmons

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Education

Master of Public Health, Epidemiology & Applied Biostatistics **2018 - 2020**
Columbia University, Mailman School of Public Health, New York, NY *(anticipated)*

Relevant coursework: epidemiological study design, biostatistical methods (regression/GLMs, survival analysis, longitudinal analysis), environmental health modeling, pharmaceutical statistics, machine learning, data management, statistical programming (R, SAS, SQL) GPA: 4.0

Bachelor of Science, Neuroscience **2011 - 2015**
Baylor University, Waco, TX

Relevant coursework: neuroanatomy & physiology, community-based health research, biostatistics, mixed models, pre-medical studies GPA: 4.0

Current and Previous Research

Fine particulate matter, extreme heat events, and congenital heart defects **Nov. 2019 - present**
Department of Epidemiology, Columbia University Mailman School of Public Health

- Conducting large, population-based case-control study on environmental risk factors for birth defects in US
- Investigate relationships between maternal exposures (extreme heat events, $PM_{2.5}$) and congenital heart defect subtypes
- Prepare and analyze data from the National Birth Defects Prevention Study (NBDPS), largest US study of its kind
- Supported by nationwide research sites and the Centers for Disease Control (CDC) (info)

Climate variation and under-5 weight-for-height **Feb. 2019 - present**
International Research Institute for Climate & Society, Earth Institute, Columbia University

- Conducting large, population-based time series study on climatic risk factors for child development in Bangladesh
- Investigate associations between extreme climate events and child anthropometry at seasonal and sub-seasonal scales
- Merge, harmonize, and analyze large, administrative climate and nutrition surveillance datasets
- Contribute biostatistical and epidemiological skillset to team of top Columbia researchers for ACToday Project (info)

Water quality, food security, and under-5 anthropometry **Jan. 2013 - May 2015**
Baylor University, Waco, TX

- Conducted cross-sectional study of household-level dietary and environmental risk factors for child development
- Investigated associations between dietary diversity, water quality, and anthropometry in indigenous Luo community
- Results used to inform NGO-led water and nutrition interventions utilized by 1,000+ in Nyakach, Kenya

Scholarships, Honors, and Professional Memberships

Member, American Statistical Association	2020 - present
1st prize - research poster presentation, NYC Clinical Climate Change Conference, Mt. Sinai	2020
1st place - research presentation, Master's Student Day, Columbia Dept. of Epidemiology	2019
Delta Omega Honor Society	2019
Wyman Scholar, Columbia University (full tuition: $80,000)	2018
Phi Beta Kappa Honor Society	2014
Glennis McCrary Goodrich Scholarship Award for International Research ($3,500)	2013
Regent's Gold Scholar, Baylor University (full tuition: $138,000)	2011

Teaching and Professional Experience

Graduate Teaching Assistant **Aug. 2019 - Dec. 2019**
Departments of Biostatistics & Epidemiology, Columbia University Mailman School of Public Health

- Teaching assistant for graduate-level Quantitative Methods module in Columbia MSPH's CORE Curriculum
- Instructed 25 first-year master's students once weekly in introductory biostatistics and epidemiology

Food Systems Specialist **Aug. 2015 - Jul. 2018**
Hawai'i Alliance for Community-Based Economic Development, Honolulu, HI

- Coordinated interisland network of 20+ grassroots organizations in indigenous health and environmental justice
- Wrote successful grant proposals and contracts totaling $600,000+ for community food systems work

Lead Program Evaluator **May 2015 - Aug. 2015**
Our Children, Their Nutrition

- Led data analytics, monitoring, and evaluation of childhood nutrition education program
- Contributed to research presented at APHA 2015 Annual Meeting

Development Intern, Africa Bureau **Jun. 2014 - Aug. 2014**
United States Agency for International Development (USAID), Washington, DC

- Provided technical and capacity building support to Country Development Officers throughout Southern Africa
- Created briefing materials for high-level initiatives, including President Barack Obama's Young African Leaders Initiative

Publications

In preparation:

Simmons W, Stingone J, Luben T, Sheridan S, Langlois P, Shaw G, Reefhuis J, Romitti P, Feldkamp M, Nembhard W, Browne M, Lin S, and the National Birth Defects Prevention Study. Joint effects of prenatal exposure to fine particulate matter and extreme heat on congenital heart defects in offspring.

Simmons W, Parks RM, Downs S, Nissan H. Time series analysis of associations between extreme climate events and under-5 growth faltering: Bangladesh, 1990-2006.

Presentations and Conferences

Simmons W, Nissan H (2020). *Climate variation and anthropometric indicators of under-5 nutrition: Bangladesh, 1990-2006.* Poster, 2nd Annual Conference on Clinical Climate Change. Icahn School of Medicine at Mount Sinai. New York, NY. First prize.

Research Computing Bootcamp: UNIX, Git, Python (2020). Attendee. Columbia University. New York, NY.

"Food, climate, and environment: What's next?" (2019). Panel moderator and organizer. Columbia University Mailman School of Public Health. New York, NY.

Simmons W, Nissan H (2019). *Associations between climate and under-5 nutritional status in Bangladesh, 1990-2006.* Invited presentation, Epi Master's Student Day. Columbia University Mailman School of Public Health. New York, NY. First prize.

Simmons W, Baker L (2016). *Clean water, food security, or protein? A study of growth among children in rural western Kenya.* Contributor to presentation, 13th Annual Global Health & Innovation Conference. Yale University, New Haven, CT.

Skills

Languages, Software, & Packages
Proficient: R (tidyverse, caret), SAS, SQL (MySQL, MS Access)
Familiar: R Shiny, MATLAB, QGIS

Tools
Familiar: Git/DVCS, LaTeX

Certifications
HIPAA, CITI Human Subjects